

WHAT IS CLAIMED IS:

1. Composition comprising recombinant nucleic acid encoding all or part of a membrane-associated polypeptide of a mycobacterium, wherein said  
5 mycobacterium is capable of inducing an immune response that is detectable with all or part of said membrane-associated polypeptide.
2. The composition of Claim 1 wherein said mycobacterium is selected from the group consisting of  
10 M. bovis, M. tuberculosis, M. leprae, M. africanum, and M. microti, M. avium, M. intracellular and M. scrofulaceum.
3. The composition of Claim 1 wherein said mycobacterium is M. bovis BCG.
- 15 4. The composition of Claim 3 wherein said membrane-associated polypeptide comprises an ion-motive ATPase.
5. The composition of Claim 4 wherein said ATPase has a deduced molecular weight of about 79kD.
6. The composition of Claim 1 wherein said membrane-associated polypeptide is encoded by a DNA sequence  
20 capable of hybridizing with nucleic acid containing all or part of the DNA SEQUENCE ID NO: 1.
7. The composition of Claim 6 wherein said nucleic acid encodes at least an extracellular domain of said  
25 membrane-associated polypeptide.
8. The composition of Claim 6 wherein said nucleic acid encodes at least an intracellular domain of said membrane-associated polypeptide.

9. The composition of Claim 6 wherein said nucleic acid encodes at least one transmembrane domain of said membrane-associated polypeptide.

5 10. The composition of Claim 9 wherein said nucleic acid encodes a chimeric polypeptide comprising said at least one transmembrane domain and an immunogenic polypeptide.

10 11. Composition comprising all or part of a membrane-associated polypeptide of a mycobacterium, wherein said mycobacterium is capable of inducing an immune response that is detectable with all or part of said membrane-associated polypeptide.

15 12. The composition of Claim 11 wherein said mycobacterium is selected from the group consisting of M. bovis, M. tuberculosis, M. leprae, M. africanum, and M. microti, M. arium, M. intracellular and M. scrofulaceum.

13. The composition of Claim 11 wherein said mycobacterium is M. bovis BCG.

20 14. The composition of Claim 13 wherein said membrane-associated polypeptide comprises an ion-motive ATPase.

15. The composition of Claim 14 wherein said ATPase has a deduced molecular weight of about 79kD.

25 16. The composition of Claim 11 wherein said membrane-associated polypeptide is encoded by a nucleic acid capable of hybridizing with a nucleic acid encoding all or part of DNA SEQUENCE ID NO:1.

17. The composition of Claim 16 wherein said polypeptide comprises at least an extracellular domain of said membrane-associated polypeptide.
18. The composition of Claim 16 wherein said polypeptide comprises at least an intracellular domain of said membrane-associated polypeptide.
19. The composition of Claim 16 wherein said polypeptide comprises at least one transmembrane domain of said membrane-associated polypeptide.
20. The composition of Claim 19 wherein said polypeptide comprises a chimeric polypeptide comprising said at least one transmembrane domain and an immunogenic polypeptide.
21. A vaccine comprising all or part of a membrane-associated polypeptide of a mycobacterium or expressible nucleic acid encoding all or part of said polypeptide, in a recombinant vaccine vehicle capable of expressing said DNA, wherein the vaccine vehicle comprises a virus or a bacterium.
22. The vaccine of Claim 21 wherein said membrane-associated polypeptide is an ion-motive ATPase of a mycobacterium.
23. Nucleic acid comprising a promoter sequence from an ion-motive ATPase of a mycobacterium.

*Add B1*

*Add (13)*  
*add D3*